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DATE: 7/10/2003
TO: Examiner Lun Yi Lao
FAX: 703-872-9315
FROM: Don Stout
RE: SN 09/608,234

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Request for Reconsideration

Docket: A-1559

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE#11/Recons
mail
7/14/03

Applicant: / Group Art: 2673
Guell et al. /
US Serial No.: 09/608,234 / Examiner: Lun Yi Lao
Filed: 6/30/2000 / **RESPONSE UNDER 37 C.F.R.**
Title: EXTERIOR AIRCRAFT VISION / **§ 1.116 --EXPEDITED**
SYSTEM USING A HELMET- / **PROCEDURE-**
MOUNTED DISPLAY / **EXAMINING GROUP 2673**

Official

7-10-03

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Date: 7/10/03Signed: Donald E. Stout

Donald E. Stout, Reg. No. 34,493

REQUEST FOR RECONSIDERATION UNDER 37 CFR 1.116

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is a request for reconsideration of the rejections set forth in the final Office Action mailed on May 1, 2003.

Claims 1-3, 6-8, 10-14, 17, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hale et al. '394. Essentially, responsive to the amendments presented in the last response, and the accompanying arguments, the Examiner has maintained rejections based upon the same prior art, but has changed the basis for those rejections from anticipation under 35 U.S.C. 102(b) to obviousness under 35 U.S.C. 103(a).

Applicants respectfully traverse the new rejections as being incorrect.

The Examiner incorrectly states that Hale et al. "teach a display for receiving output signal from the processor (20,39) and superimpose it on the see-through visor which also selectively permits an operator to view actual image disposed in (sic) from the visor (see figures 1, 2; column 4, lines 1-18 and lines 65-68; and column 5, lines 1-26)." Rather, the referenced figures and passages specifically support Applicants' position that Hale et al. does not teach a "conformal system", as claimed, wherein selected images generated from the sensor system are superimposed over actual visual images viewed by the naked eye of the operator through the see-through visor. Rather, Hale et al. teaches a

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system wherein the images seen by the operator are entirely those generated by the sensors and selected by the operator using selector 26. The Hale et al. system is designed so that the "selected portions typically would correspond to image positions around the operator's line of sight as established by the headgear" (col. 4, lines 13-16), but they are still entirely artificially generated images.

The Examiner apparently acknowledges that Hale et al. does not teach the usage of staring type sensors, as claimed, but rather, specifically teaches the usage of turret-mounted, movable sensors. However, the rejection proposes that "Hale et al. have disclosed a large number of staring sensors fixed to a host platform with maximal coverage with minimal moving parts would reduce cost and more reliable (sic) (see column 1, lines 65-68 and column 2, line 1)". Based on this conclusion, the Examiner states that it "would have been obvious to have sensors (71-74) comprising a non-turret mounted immovable sensors (sic) since those sensors (71-74) mounted on the vehicle (airplane 70) have corresponding fields of view (81, 82, 83, 84) which together almost entirely surround the airplane...".

Applicants do not understand the Examiner's position at all. The passage referenced by the Examiner in Hale et al. teaches away from using staring type sensors. This passage is in the background portion of the patent specification, and actually states that it has been suggested in the prior art that large parallel arrays of staring type sensors, rather than serial gimbaled sensor scanners, would be advantageous, but the patentees did not agree that they were. Rather, the passage noted by the Examiner (the part he conveniently ignores) actually states that such parallel fixed arrays have a number of problems, including a long processing time, platform motion which creates vibration problems, and increased complexity, requiring greater processor load and consequent greater cost (see col. 2, lines 5-30).

The Hale et al. patent, consequently, teaches that staring-type sensors are inappropriate for systems of the type disclosed. Adjustable (gimbaled) sensors, disposed on turrets, and adjusted by means of servo-motors, are utilized in order to permit the sensor to compensate for motion or vibration of the underlying platform (col. 3, lines 3-20 and 55-57, Figs. 4-7, col. 5, lines 45-65). Thus, the Examiner's rejection requires that the basic premise of the Hale et al. patent be destroyed, by replacing the adjustable servo-controlled sensors with fixed staring-type sensors, even though Hale et al. specifically

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teach away from doing that. Clearly, therefore, the rejection is improper. *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 230 U.S.P.Q. 416 (Fed. Cir. 1986), *Specialty Composites v. Cabot Corp.*, 6 U.S.P.Q.2d 1601 (Fed. Cir. 1988).

More particularly with reference to the claims, and, as noted in the prior submittal, which was dismissed by the Examiner as "being moot in view of the new grounds of rejection", independent claim 1 recites that each of the claimed vision sensors are non- turret mounted immovable sensors. In contrast, as noted above, the Hale et al. patent discloses sensors 1-4, which, as shown in Fig. 4 thereof, are disposed in movable fashion on the vehicle. Servo motor 60 is disclosed as permitting "major changes in the position of the detector 1" (col. 5, lines 60-65). Additionally, the claim recites that the system, which superimposes the output signal on the visor, also selectively permits an operator to view actual images disposed in front of said visor. The system at issue is a "conformal" system, meaning that the system is conformal to the outside world, and the superimposed image matches 1 to 1 with the outside world view. On the other hand, the Hale et al. '394 patent is not a conformal system, despite the Examiner's unsupported assertions to the contrary. There is no disclosure that the visor employed therein permits actual images to be passed therethrough. Rather, the operator sees, exclusively, the image generated from the sensors 1-4.

Thus, claim 1 is clearly patentable over the Hale et al. '394 patent, together with all of the dependent claims 2-21. For the reasons noted above, it would not have been obvious to substitute staring-type sensors for the turret-mounted sensors of Hale et al., because such a substitution would destroy the premise of the Hale et al. invention.

Claims 4-5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hale et al. '394 in view of Myrick '789. However, since claims 4-5 and 15 depend upon patentable claim 1, this rejection falls as well.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hale et al. '394 in view of Hale et al. '364. This rejection falls, since claim 9 depends upon patentable claim 1.

Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hale et al. '394 in view of Muller '782. However, this rejection falls, since claims 18-19 depend upon patentable claim 1.

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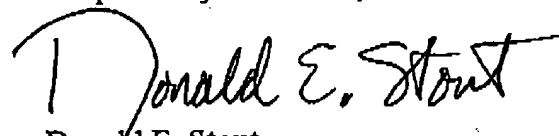
Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hale et al. '394 in view of Myrick '789 and Kaneko '418. This rejection falls, however, since the claim is dependent upon patentable claim 1.

Claims 22-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hale et al. '394 in view of Okamura et al. '343. However, independent claim 22 is similar, in many respects, to patentable claim 1, in that immovable vision sensors are recited, together with the capability of viewing, together, actual and superimposed images on the display screen. Also, the claim recites a controller which permits varying levels of intensity of light to be transmitted through the screen or for alternatively selectively disabling selected regions of the screen so that light cannot pass through those selected regions. Clearly, this claim is patentable over Hale et al. '394, as are claims 23-26, which are dependent thereon, for the reasons discussed above in connection with claim 1.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hale et al. '394 in view of Okamura et al. '343 and Krouglicof et al. '504. However, this rejection falls since claim 25 depends upon patentable claim 22.

In view of the foregoing, Applicants respectfully submit that each of the pending claims are allowable over the prior art of record, and an early notification of allowance is earnestly solicited. The Examiner is requested to contact the undersigned at the number below, should any further questions or issues need to be resolved.

Respectfully submitted,



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